ries; and M. Nelaton preferred, to so dangerous a proceeding, a trial of galvanopuncture, which he performed in the following way:—

Two needles were applied to those points of the tumour where the pulsations were most apparent, and then brought into connection with the battery of Bunsen, ("Systéme de Piles de Bunsen,") composed of thirty pairs of plates, which were permitted to act uninterruptedly for ten minutes. For the distance of a centimetre from the point of contact of the needle, connected with the positive pole, an induration was felt, caused by the coagulation of the blood in the tortuous vessels of the part.

The pain was very slight indeed. A similar application of electricity was effected, eight days afterwards, in another point of the tumour, and with the same result. In short, six sittings sufficed to stop the pulsations in the whole extent of the tumour, and to lead to the obliteration of the plexus of arteries of which it was composed. The harder parts became in time absorbed without recurrence of the permeability of the vessels.—*Med. Times and Gaz.* Sept. 10, 1853, from *La Presse Med. Belge.*

52. *False Aneurism of the Posterior Tibial Artery.*—The injection of perchloride of iron caused coagulation of the blood in the spurious aneurismal sac, produced by division of the posterior tibial artery in a child aged four weeks. The firm clot squeezed out the serum, which was seen oozing from the surface of the wound. The instrument used for injection was a glass syringe, with a long and slender tube, which was made to penetrate the clot, and convey the perchloride to the fluid blood below.—*Med. Times and Gaz.* July 30. (*Proceedings of the Royal Medical and Chirurgical Society.*)

53. *New Instrument for injecting the Perchloride of Iron in Cases of Nævus, &c.*—During the last two months we have witnessed several trials of the acid solution of the perchloride of iron, as an injection for producing the coagulation of the blood in nævus, etc. In more than one instance, very severe inflammation of the part has followed its use, and in one, a nævus on the scalp, sloughing, and even exfoliation of a portion of bone resulted. There appeared, however, some reason to think that the powerful agent had been too freely used, and that, had a much smaller quantity been injected, the promises made by its introducers might possibly have been borne out. Other objections also applied to the method and instruments in ordinary use; they required that an opening should be made for the introduction of the syringe; and the flow of blood produced by the puncture, to say nothing of the smallness of the aperture, sometimes rendered the latter difficult of accomplishment. We have been shown, during the past week, an ingenious little instrument contrived by Mr. Fergusson, of Giltspur-street, which looks likely to aid very materially the efficient accomplishment of this procedure. It consists of a very small glass syringe, the point of which terminates in a fine platinum tube. This tube is encased in another one, about a quarter of an inch longer than the first, ending in a sharp trocar-like point, and having, near its extremity, an oblique opening in one side. By rotating the outer tube on the contained one, their apertures may be made to correspond or otherwise, at the will of the operator. Thus, then, the necessity for two instruments is quite done away with. The syringe having been charged, the operator rotates the outer tube, so as to conceal the orifice of the inner one entirely, and protect it from the ingress of blood. In this state the instrument is passed into the centre of the tumour, and, having been stirred about as much as may be thought desirable, the tube is turned back, so as to expose the orifice; and the piston being at the same moment depressed, a drop or two of the solution is squeezed out. It may be supposed, that the smallness of the whole instrument, and the diminutive size and oblique position of its aperture, will afford considerable guarantee against the injection of too large a quantity, while on its advantages, in case of employment, it is scarcely necessary to insist.—*Med. Times and Gaz.* Aug. 27, 1853.

54. *Analysis of Cases of Injuries of the Head examined after Death in St. George's Hospital, from January,* 1841, *to January,* 1851, *with Pathological and*

Surgical Observations. By PRESCOTT HEWETT, Assistant Surgeon to St. George's Hospital.—In this analysis, the author purposely included only fatal cases, where the exact nature of the injury had been clearly made out.

SECTION I. *Scalp Wounds without Fracture of the Bones.*—In this decennium 33 cases of scalp wounds without fracture of the bones were examined. In 10 of these cases death was produced by some other cause. In the remaining 23 cases mischief of a serious nature soon followed the injury, and ultimately proved fatal. Diffuse cellular inflammation occurred in 17 cases, and in 12 this was accompanied with erysipelas. In four cases there was diffuse inflammation of the neck, which spread down to the mediastina in two, and caused œdema of the larynx in two cases. Hemorrhage in two cases followed sloughing caused by inflammation. In 9 out of 12 cases, where both brain and its membranes were healthy, death ensued from purulent infection. In ten cases inflammation had existed about the membranes or the brain. In eight, suppuration was found between the bone and the dura mater. The trephine had been applied in three cases. Most of the patients were persons of intemperate habits. Several had insisted upon leaving the hospital, but were readmitted with swelling of the scalp and other signs of inflammation. Simple puncture, as recommended by Sir Benjamin Brodie, relieves the œdematous swelling not uncommonly following scalp wounds; but free incisions are required when suppuration ensues. Sloughing of the scalp is thus usually prevented. Separation of the dura mater from the bone may occur either as a primary or as a secondary effect. In the first case the small vessels connecting the dura mater to the bone are ruptured by the blow; in the second, the osseous tissue inflames and suppurates. Generally speaking, the suppuration between the bone and dura mater is circumscribed, and the extent of the mischief on the inner side of the bone is exactly traced by that on the outer side; but should the suppuration occur in the parietal region it may be much more diffuse. In this decennium, there has been no single instance of the secondary puffy tumour of the scalp, described by Pott. It has never fallen to the author's lot to witness a case in which the application of the trephine for the evacuation of pus within the cranium, as described by Pott, had a successful issue. He has never known the trephine applied at St. George's Hospital with the view of evacuating matter situated either under the dura mater or in the brain. Matter may flow, upon the application of the trephine, from the cancellous diploe of the cranium. Purulent infection was observed in 14 out of 23 fatal cases of scalp wound. This disease is found especially in injuries involving the osseous system, and M. Chapaignac believes that the removal by the trephine of the contused bone, before suppuration has taken place in its diploe, destroys the source from whence the secondary mischief is for the most part derived; but such an explanation cannot be received as a valid one.

SECTION II. *Fractures of the Bones, and Separation of the Sutures.*—In this decennium 78 cases of fractures of the skull were admitted, 18 of which had received other severe injuries, of a nature likely to cause death; 56 were simple fractures; 22 were compound. Of the simple fractures, 19 were accompanied by wounds of the scalp not exposing the bone; extensive separation of the sutures coexisted in 14 cases. In 47 cases, the injuries had been produced by the patients having fallen from various heights; in 10, the blow had been inflicted by some heavy instrument. In the 56 cases of simple fracture, there was only one single instance in which the injury was confined to the spot upon which the blow had been struck. Fractures of the base of the skull seldom exist alone; in a large majority of cases the injury coexists with fractures radiating from the point where the blow was struck. In 68 cases of fracture of the base, six only were confined to this region, and it was only in two cases that no trace of fracture could be detected at the seat of the blow. In six cases of simple fracture the injury was accompanied by depression, which was in all very slight. In 10 cases of compound fracture there was also depression of the fragments, considerable in nine. Fractures of the skull, with depression of the inner table alone, occur but rarely. The author divides the skull into three zones, to each of which injuries are often confined, fractures of the middle zone being the most common. Fractures involving the orbital plates of the frontal bone are oftentimes accompanied with effusion of blood in the orbit. Bleeding from the ear is of not infrequent occurrence in severe injuries to the head, indicating fracture through the petrous portion of the temporal bone. But of the signs indicative of fracture of the petrous bone, one of the surest is the copious discharge of a watery fluid, which may or may not be preceded by bleeding. The author believes the fluid to come from the sub-arachnoid space. That such is sometimes the case has been established by M. Robert, in a valuable paper in the "Mémoires de la Société de Chirurgie de Paris," vol. i. The discharge occurred in old as well as in young subjects. M. Chapaignac has endeavoured to prove that this fluid owes its origin to the filtering of the colourless part of the blood, and other surgeons have held that it comes from the cavity of the arachnoid. Such cases, however, if they do occur, must be rare. The author does not believe that the source of the watery fluid in all cases is the sub-arachnoid space, but in most cases, and especially those where it is clear and abundant from the commencement, and he refers to Mr. Hilton's Lectures in proof of this statement. Extensive separation of the sutures coexisted with the fractures in 14 cases: separation of the coronal suture occurred in seven cases, and of the lambdoidal in three cases; of the sagittal suture in four cases. In one case, and in one only, there was separation of a suture without a fracture; it occurred in the posterior part of the squamo-parietal suture.—*Lancet*, June 11, 1853.

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55. *Entire Resection of both Superior Maxillary Bones.*—The complete extirpation of both superior maxillary bones has been twice performed by HEYFELDER.

CASE I. A. Schmidt, aged 25, came to the Clinique, June 13, 1844, suffering from a tumour of the face, which, from his account, had commenced a year ago, in the posterior part of the palate, and had gradually involved both superior maxillary bones. The nose was pushed upwards, and flattened; the palatine arch was depressed towards the tongue; the face was affected with œdematous swelling; both respiration and deglutition were impaired, speech was embarrassed, and the sleep broken. The teeth, though loosened, were sound; only two incisors were wanting. The tumour appeared everywhere hard, uneven, and insensible to the touch, and did not pass beyond the boundaries of the superior maxillary bones. The constitution was good; lancinating pains had been felt in the tumour only during the last few weeks.

Dr. Heyfelder concluded that the tumour was of an indolent malignant character, and that the only remedy consisted in the entire removal of both maxillary bones. The operation was performed, June 23, 1844. The patient being seated in a chair, the head resting against the chest of an assistant, two incisions were made from the external angles of the eyes to the labial commissures, and the included parts were reflected upwards to the internal angles of the eyes, and to the ossa nasi. The flap, thus formed, was raised towards the forehead, until the infra-orbital ridge was exposed. Then the chain-saw of Jeffray was passed through the spheno-maxillary fissures, and the malar bones were divided; the maxillæ were next separated from the ossa nasi; the vomer and the thinner bones were cut with strong scissors; after which a chisel, applied with moderate force to the superior part of the tumour, was sufficient to effect its separation. The accessions of syncope prolonged the operation, which, however, did not last longer than three-quarters of an hour. Very little blood was lost; torsion and compression sufficed to arrest the hemorrhage. Two hours afterwards, the edges of the wounds, from the angles of the eyes to the corners of the mouth, were united by twenty-six points of suture, and cold lotions were applied; there was no reaction nor swelling; the patient could swallow water and broth. Four days after the operation, it was remarked that the wounds had become almost entirely united by first intention. In six weeks, the patient was presented at the Physico-Medical Society of Erlangen, and on August 25, he was discharged.

The following was his condition: There was no deformity of the features; in the mouth, there was seen along the median line a fissure thirteen lines long and three lines broad; the extirpated parts had been replaced by the tissue of